

Study demographic and clinical characteristics of children with acute lymphoblastic leukemia in Ardabil province 2010-2018

Abstract

Background: *Leukemia is one of the most common malignancies in children which has an incident of 40 in every million. Leukemia accounts for 30% of all malignancies in children under 15 year old.*

Aim: *to determine demographic and clinical characteristics of children acute lymphoblastic leukemia in Ardabil province*

Methods and materials: *The current study is a cross-sectional and descriptive one. 107 children who were diagnosed with ALL during 1389-1397 in Bou_Ali pediatric hospital of Ardabil city, were enrolled in the study. Their information including demographic, clinical manifestations and immunomorphology were gathered using a checklist after obtaining required permissions and been analyzed using SPSSv22.*

Results: *The results showed that most of the children suffering from ALL was in the age group of 1-10 YO. 61 children (57%) were male. 58 patients were from average economical level. In about 31% of the children, the season of disease onset was summer. In 75.8% of cases, the final diagnosis was made before one month. The most common manifestations were fatigue, organomegaly, fever, pallor and lymphadenopathy respectively. From the total 107, 69 cases were Pre-B ALL type. Further evaluations revealed that WBC more than 50000 was occurred in only 18.7% of cases. Also, Hb less than 7 was shown in 31.8% of the patients. Plt count less than 100000 was seen in 79.4% of cases.*

Conclusion: *Finally, it can be concluded from the current study that ALL related manifestations in Ardabil province is similar to what is described globally. One of the most important conclusions from this study is the early diagnosis of the disease before development of blastic crisis which can positively affect the survival of the child so that more that 80% of cases, the WBC was less than 100000.*

Keywords: *Acute lymphoblastic leukemia, leukemia, demographic characteristics*